

A Reconsideration of Some Former Husbandry Practices

By ERIC KERRIDGE

THE purpose of this article is to reconsider certain points of former husbandry practice, namely, ridge and furrow, and boundary balks, and to continue the discussion of them which was originated respectively by Mr M. W. Beresford and by Dr and Mrs C. S. Orwin.

I

In a series of articles¹ Mr Beresford sought to prove "that the single strip of the medieval fields is represented exactly by the ridge and furrow of the modern English landscape."² Against this I ventured to argue that "Ridge and furrow was not always for arable cultivation; when for arable, not always for cereal crops; when for cereal crops, not always for permanent cultivation; when for permanent cultivation, not always for continuous tillage; when for continuous tillage, not always for open field tillage; when for open field tillage, not always for common field husbandry." I also entered a plea that agricultural history should be studied primarily not by archaeological but by historical method.³

No one could be more acutely aware than I am of the many imperfections embodied in my article, some of which arose from the necessary, but not always well-considered, compression of the original paper, and others from insufficient attention to detail. Nevertheless, I learn from a charitable source that the argument and conclusions of my article were favoured with a certain measure of acceptance, tempered by a feeling that I had not dealt sufficiently with the particular instances that Mr Beresford adduced in support of his argument. Of this it will here suffice to say that his argument can now be checked by comparison with other studies. Dr Mead has shown cartographically that surviving ridge and furrow in Buckinghamshire coincided with the cold soils and was absent from warm soils, and he concludes: "The only indisputable fact is that all ridge and furrow land has at some time been

¹ M. W. Beresford, 'Ridge and Furrow and the Open Fields', *Econ. Hist. Rev.*, 2nd ser., I, 1948; 'Maps and the Medieval Landscape', *Antiquity*, xxiv, 1950; 'Glebe Terriers and Open Field Leicestershire', in *Studies in Leicestershire Agrarian History*, Leicester, 1949, p. 98.

² 'Maps and the Medieval Landscape', p. 115.

³ 'Ridge and Furrow and Agrarian History', *Econ. Hist. Rev.*, 2nd ser., IV, 1951.

under the plough.”¹ This is agreeable with my remark that “All that the evidence of ridge and furrow proves by itself is that the land was at one time thrown into ridge and furrow.”²

Between the publication of Mr Beresford’s articles and mine, Mrs Chapman, studying open fields in Cheshire, discovered that ridge and furrow showed most strongly in the cold soils, where open field was least to be found, and was “absent on sandy soils, just where the strongest survivals of open field were to be found” in the early modern period.³ This serves at least to show the impossibility of tracing the former extent of common fields from surviving ridge and furrow. Finally, there had already been some discussion that Mr Beresford and I both overlooked, for Mr Slack had long before argued that ridge and furrow was for surface-drainage and that the old system of ploughing, together with the S-bend, which he attributes to plough-twist, was sometimes continued in enclosures.⁴ There is, then, little doubt that the gathering up of high ridge and furrow was practised in both open and enclosed fields.

It might still be argued, however, that the extent of former open field in certain areas could be judged from the ridge and furrow antecedent to hedgerows. To Mr Beresford it appeared that the weakest link in my argument was the bald assertion that “it would take more than ‘a glance at any air-photograph’ showing ridge and furrow ‘sailing blithely’ under hedges to prove former continuity.”⁵ Most people would agree, I believe, that it is not always easy to decide if the ridge and furrow seen in aerial photographs was originally continuous or not, but my remark seems also to have been taken to apply with equal force to ground observation, as indeed it does. Mr Beresford, clinging to the kernel of his original argument to help him in his task of finding lost villages, said that I appeared to “overestimate the ability or knowledge of the ploughmen of the last two centuries to etch an open-field pattern between and through the modern hedges.”⁶

But even where ridge and furrow was set up for the sake of surface-drainage, this surface-draining could not often have been confined to ridge and furrow, for in that case the surface water would only have been taken from the centre to drown the margins. Where water-furrows are used today

¹ W. R. Mead, ‘Ridge and Furrow in Buckinghamshire’, *Geog. Jnl.*, CXX, 1954, pp. 37, 41–2.

² *Art. cit.*, p. 32.

³ V. Chapman, ‘Open Fields in West Cheshire’, *Trans. Hist. Soc. Lancs. and Cheshire*, CIV, 1953, pp. 58–9.

⁴ W. J. Slack, ‘The Open Field System of Agriculture’, *Trans. Caradoc and Severn Valley Field Club*, x, 1938, pp. 147 ff.

⁵ ‘Ridge and Furrow and Agrarian History’, p. 14, n.5.

⁶ *The Lost Villages of England*, London, 1954, p. 53.

for surface-drainage, the water is usually carried from the furrows and over the headland by means of gutters, and is often also drawn off to the side of the field by means of cross-gutters. Former practice in enclosed fields was hardly different, though perhaps superior in execution.¹ It is therefore not surprising to find that the common-field cultivators also engaged in guttering, cross-guttering, and trenching.² Orders for guttering, gripping, and trenching in common fields are frequent.³ It is agreed, for instance, "that every man shall drayne his arrable lande where neede is as deepe as the furrowes," in the wheat field by Martinmas and in the other fields by Christmas,⁴ that lands in the common field be trenched two days after sowing,⁵ that every man shall gripe his Land where any water crosses over it, his neighbour having done his" and given one day's warning,⁶ and that every man is to let the water from his grounds in the field before 11 November and to keep the outfalls clear throughout the year.⁷ Sometimes the occupiers of common-field land had to trench their portions where the jury of the manor decided.⁸ Sometimes orders are made for the ditching and trenching of lands' ends

¹ H. Holland, *General View of the Agriculture of Cheshire*, London, 1808, p. 128.

² W. Marshall, *A Review of the Reports to the Board of Agriculture from the Eastern Department of England*, York, 1811, p. 237; J. Middleton, *View of the Agriculture of Middlesex*, London, 1798, p. 140; C. Vancouver, *General View of the Agriculture in the County of Cambridge*, London, 1794, p. 108.

³ E.g., T. L. Tancred, 'Three Seventeenth Century Court Rolls of the Manor of Aldborough', *Yorks. Arch. Jnl.*, xxxv, 1943, pp. 205, 212; M. W. Barley, 'East Yorks. Manorial Bye-Laws', *ibid.*, pp. 47-8; Birmingham Ref. Lib. MS. 168006; Berks RO (Rec. Off.) D/EPb/M3, Ct. Bk. (Court Book) Coleshill, p. 66; Soms. RO, DD/MI, Acc. C.186, box 6, Ct. Bk. Queen Camel 1600-11; Ct. R. (Roll) Queen Camel 25 Oct. 1692; Northants RO, Daventry Coll. 540, Ct. R. Hellidon 16 Oct. 14 Chas. II; Cambs. RO, L.64, Ct. R. Foxton Bury, Wimbish & Chatteris 23 Mar. 4 Jas. I; 7 Dec. 1665; L.19/17, Ct. R. Haslingfield c. 1598; L.1/8, Ct. R. Bassingbourne Richmond 19 Apr. 7 Chas. I; PRO, DL (D. of Lanc.), Ct. R., bdle. 81, no. 1119, m. 20v.; BM, Egerton MS. 3002, ff. 58, 65; Add. MS. 36585, ff. 164, 304v.; Add. R. 9284; N. Riding RO, ZBQ, Ct. R. Hustwaite cum Carlton 20 Oct. 1 Chas. I; ZCF, Ct. Bk. Thirsk 1622-38, 14 Oct. 4 Chas. I; 8 Oct. 1630; 1739-90, entry 1741; Beds. RO, X.69/5-6; Middx. RO, Acc. 248/1a, Ct. R. Colkennington als. Kenton, 1678; 249/69, Ct. R. Ruislip 23 Oct. 18 Eliz.; 446/M102, Ct. R. Harmondsworth 6 Apr. 10 Chas. I; 2 Oct. 11 Chas. I; 5 Feb. 1639; Wm. Salt Lib. (WSL), Ct. R. Madeley Holme 6 Apr. 1652; Shakespeare's Birthplace Trust Lib. (SOA), Hood Coll., Ct. R. Stivichall 23 Oct. 1710; Manorial Docs., Ct. Bk. Alveston and Tiddington 23 Oct. 7 Jas. I; 22 Oct. 8 Jas. I; Ct. R. 11 Apr. 18 Chas. II.

⁴ Northants RO, Westmorland Coll., box 5, parcel v, no. 1, Ct. R. Stanground 17 Sept. 19 Jas. I; 13 Sept. 20 Jas. I.

⁵ PRO, Exch., Q.R, Sp. Comm. 5553, 2nd file, m. 1; Northants RO, Westmorland Coll., box 5, parcel v, no. 5, Ct. R. Farcet 25 Oct. 1660; SOA, Throckmorton Coll., Ct. R. Oversley 19 Oct. 1654.

⁶ Cambs. RO, L.1/112, Ct. R. Long Stanton 3 Oct. 1654.

⁷ Northants RO, Westmorland Coll., box 5, parcel v, no. 1, Ct. R. Farcet 15 Sept. 13 Jas. I.

⁸ R. W. Jefferey, 'The Manors and Advowson of Great Rollright', *Oxfords. Rec. Soc. Trans.*, ix, 1927, p. 24; BM, Add. MS. 36585, f. 164.

and headlands.¹ Often gutters and drains were made by individuals, while the trenching was a public service.² Thus at Caxton it is ordered that all the land sown is to be water-furrowed and that every man is to "cross furrow by drawing their plowes over their respective lands soone after they are sowne soe as the Hayward may make the water trenches accordingly."³ Sometimes again both guttering and trenching were a public service provided on payment of a rate assessed by the yardland.⁴ That gutters crossed over headlands is not to be doubted. Fitzherbert advises the husbandman to "se that no water stande at the landes endes butting on the hedde landes, and yf it so do, than with a plough cast a forow toward the hedlandes and than the water wyll folowe that forow and make the landes drye."⁵ Laurence says that drains must be made to carry away the water, if need be by opening a trench across the headland.⁶ Similar remarks by Worlidge and Tull I have already cited elsewhere.⁷ Sometimes the orders made in manorial courts are more general, but they often allude specifically to the guttering of headlands.⁸ A defendant is accused of guttering his headland to the damage of his neighbour's meadow.⁹ Many grasslands, both in common and in severalty, were similarly furrow-drained.¹⁰ Gipping could be effected simply with a trenching

¹ *Yorks. Deeds* (vol. I, ed. W. Brown, *Yorks. Arch. Soc. Rec. Ser.* XXXIX, 1909), 149; Northants RO, Higham Ferrers Burgess R. field orders 1696-1725; Cambs. RO, L.64, Ct. R. Foxton etc. 16 Sept. 42 Eliz.

² PRO, Ct. R., Gen. Ser., bdle. 207, no. 42, Ct. R. Leamington and Lillington, 18 Jan. 38 H. VIII; Northants RO, Montagu Coll., Misc. Ledger 145, Luddington 13 Oct. 1713; Westmorland Coll., box 5, parcel v, no. 1, Ct. R. Woodnewton 15 Sept. 18 Jas. I.

³ Cambs. RO, L.88/4, Ct. Files Whitsun 1659 presentments.

⁴ Berks RO, D/EPb/M3, p. 66; Northants RO, XYZ. Coll. 988, Ct. R. Greatworth 12 Jan. 4 Chas. I; Aynho Ct. R. 20 Oct. 1 Jas. II.

⁵ *The Boke of Surveyinge and Improvements*, London, 1534, f. 44.

⁶ J. Laurence, *A New System of Agriculture*, London, 1726, p. 62.

⁷ 'Ridge and Furrow and Agrarian History', p. 21.

⁸ WSL, Ct. R. Shentone 20 Oct. 6 Chas. I; Northants. RO, Montagu Coll., Misc. Ledger 129, Luddington 12 Oct. 1728; box 1378, box 25, no. 51, Ct. R. Luddington 23 Apr. 15 Eliz.

⁹ Wm. Salt Arch. Soc., *Coll. for a Hist. of Staffs.*, new ser., 1910, p. 70.

¹⁰ *Ibid.* 1926, pp. 67-8; W. Marshall, *Minutes on Agriculture in the Southern Counties*, London, 2 vols. 1799, I, p. 82; G. Atwell, *The Faithfull Surveyour*, Cambridge, 1662, p. 89; *The House and Farm Accounts of the Shuttleworths*, ed. J. Harland, Chetham Soc. xxxv, xli, xliii, xlvi, 1856-8, xxv, p. 114; PRO, Exch. Q.R., Sp. Comm. 5553, 2nd file, m. 1; BM, Add. MS. 36904, ff. 33, 74; 36908, ff. 12v., 36, 55; Glos RO, D.247, Ct. R. Longborough, no. 36; Wilts RO, Hobhouse Papers, Class A, bdle. 25, no. 5 (FL); Cambs. RO, L.1/112, Ct. R. Long Stanton 3 Oct. 1654; SOA, Throckmorton Coll., Ct. R. Coughton 1 Nov. 1708; Man. Docs., Ct. R. Adlestrop 24 Apr. 1762; Stoneleigh 6 Oct. 1692; Northants RO, Montagu Coll., box 1336, box 7, no. 66/2, verdict 13 Apr. 34 H. VIII; box 1352, box 18, no. 160, Ct. R. Barnwell 9 Dec. 5 Chas. I; Westmorland Coll., box 5, parcel v, no. 1, Ct. R. Farcet 13 Sept. 21 Jas. I; XYZ. Coll. 988, Ct. R. Greatworth 12 Jan. 4 Chas. I; WSL, Chetwynd MSS., file N, Ct. R. Church Eaton 4 Oct. 24 Eliz.

spade or hand trenching plough, of which there were several wheeled and unwheeled types, and these were well within the reach of most cultivators' purses.¹ Often the guttering and draining of common fields was done with a public or common draining plough frequently called the town plough, provided by a rate levied for the purpose and drawn by a great team of eight or nine yoke of oxen led by one or two pairs of horses or by a team of a score or so horses. While the labourers followed with shovels and trenching spades to perfect the work, the husbandmen drove the team to which they had contributed and the boys rode on the guide horses at the front.² To drain their fields and pastures in the stiff, miry clays, the common-field farmers of Caxton used a trenching plough, provided and maintained at the public charge with a mouldboard three times the usual length, two coulter to cut the sides, and a flat share to cut the bottom of a trench drain that was one foot wide at the base and eighteen inches at the top, with a depth of about one foot.³ At Naseby the town plough had likewise two coulters and cut a drain one foot deep and wide, throwing out the earth in a great ridge-like slice. This plough was drawn by a composite team of only ten or twelve horses.⁴

Guttering continued the water-furrow to the very limit of furlong and field. The drains had to be as deep as the water-furrows and to continue in much the same direction. All headlands did not need to be guttered, but where the field or furlong sloped there had to be gutters at the lower end, and where it was more or less flat or sloped in both directions, guttering could hardly have been avoided at either end. To distinguish this guttering and trenching from elevated ridge and furrow, either by aerial photograph or by ground observation, is never easy and sometimes virtually impossible. Consequently, it is virtually impossible to isolate the ridge and furrow that was aboriginally continuous and only later cut across by hedges.

Moreover, the legibility of what has been well called the erased, smeared,

¹ W. Blith, *The English Improver Improved*, London, 1652, opp. p. 69; J. O. Halliwell (ed.) *Ancient Inventories*. . . , London, 1854, p. 40.

² Blith, *op. cit.*, p. 28; Atwell, *op. cit.*, pp. 88-9; W. G. D. Fletcher, *Hist. of Loughborough*, Loughborough, 1887, p. 46; J. Mortimer, *The Whole Art of Husbandry*, London, 1707, p. 41; PRO, DL, Ct. R., bdle. 106, no. 1535, mm. 5-6; Cambs. RO, L.1/112, Ct. R. Long Stanton 3 Oct. 1654; Beds. RO, HA. 5/1, f. 22v.; Northants RO, Montagu Coll., Misc. Ledger 129, Caldecot 20 Oct. 1721; box 1352, box 18, no. 160, Ct. R. Barnwell 1 Dec. 1614; 9 Dec. 5 Chas. I; box 28, no. 28, Ct. R. Caldecot 11 Dec. 5 Chas. I; Westmorland Coll., box 5, parcel v, no. 1, Ct. R. Stanground 3 Sept. 7 Jas. I; 16 Sept. 22 Jas. I; Woodston 16 Sept. 12 Jas. I; 12 Sept. 21 Jas. I; 16 Sept. 22 Jas. I; Farcet 25 Oct. 1660. Cf. W. G. Hoskins, *Essays in Leics. Hist.*, Liverpool, 1950, p. 149.

³ Mortimer, *loc. cit.*; Cambs. RO, L.88/4, Ct. Files Caxton, presentments Whitsun 1659; 4 Oct. 1666.

⁴ J. Mastin, *Hist. and Antiquities of Naseby*, Cambridge, 1792, p. 18. Cf. Hoskins, *loc. cit.*

and over-written parchment of the landscape¹ is still further decreased by other husbandry practices, such as that of digging up the headlands and casting their mould on the fields to enrich the soil.² Furthermore, the enclosed fields were usually, as now, grouped and divided into shifts for the purpose of field courses, and while sometimes several fields fell into one shift, sometimes two or more shifts shared the same field.³ In laying down to grass "pastures" that had been "corned", Blith advises that water-furrows be made to run into a master trench, perhaps spaded out, and that the "pasture" be cast into several furlongs if necessitated by the exigencies of surface-drainage.⁴ This created in the midst of an enclosed field all the appearance of the juncture of open-field furlongs. A similar visual effect also resulted, as now, from the throwing of several closes into one.⁵ Therefore even when ridge and furrow changes direction in an enclosed field, and even when there is a headland in the middle of a close, this, by itself, is a long way from proof that common rights were exercised there at any time.

Clearly the aboriginal pattern of open fields cannot be read from present-day ridge and furrow with anything like the facility or certainty that has sometimes been supposed; and it was to this fact I made a passing allusion. The allusion, however, was made in passing precisely because it did not constitute a step in my argument, which was designed to stand without it. The weakest point of the argument was also its most crucial step, namely, the assertion that the division of fields was not confined to the division of common fields into enclosures in severalty. I pointed out that the subdivision of enclosures was a practice not infrequently obtaining in the nineteenth century.⁶ I offered no support for this crucial link because I had no evidence at my elbow to adduce, and still have none, so that if the proposition is not taken

¹ Slack, *art. cit.*, p. 142.

² J. Norden, *The Surveyors Dialogue*, London, 1618, p. 228; BM, Harl. MS. 5827, f. 7 (5)v.; Northants RO, Montagu Coll., Misc. Ledger 145, p. 184.

³ E.g., *Coll. Hist. Staffs.* ix, 1906, pp. 198-9; new ser. 1912, pp. 23-4; BM, Harl. MS. 3749, ff. 13-14; Essex RO, D/DP.E25, f. 59v.; Herts RO, Gorhambury Coll., xi. 2; Moulton Coll. 46325; Leics. RO, Linden Hall MS. 93; Museum MS. 32, D.31/2; PRO, Chanc. Proc. ser. 1, Jas. I, bdl. Y.1, no. 25; Exch., Land Rev. (LR), Misc. Bks. (MB), vol. 185, f. 32; 210, f. 40; 228, ff. 149 (1) ff.; Augmentation Off. (AO), MB, vol. 380, ff. 13, 18; 419, f. 53; Plty Survs. (PS) (Warks.) no. 4; no. 12, ff. 5-6, 19, 21, 30, 32; no. 16, ff. 1 ff.; no. 17, ff. 1 ff.; no. 20, ff. 4-5, 8, 10; no. 21, ff. 1 ff.; no. 22, ff. 1 ff.; no. 32, ff. 7-9, 12-14, 17, 21, 26; (Worcs.) no. 4, ff. 3-4, 6, 11-12, 15, 22, 27; no. 6, ff. 3-4, 8, 10-11, 16, 22.

⁴ Blith, *op. cit.*, p. 103.

⁵ E.g., W. Marshall, *Rural Econ. Norfolk*, London, 2 vols. 1787, 1, p. 130; BM, Add. MS. 34162, f. 40 (p. 181); Northants RO, Montagu Coll., box 1322, Beaulieu particular 1832, pp. 29, 121.

⁶ 'Ridge and Furrow and Agrarian History', p. 35.

as self-evident, then it need not be followed. Nevertheless, that the subdivision of enclosures was frequently carried out in the Midland Plain and elsewhere in the sixteenth, seventeenth, and eighteenth centuries, is attested by a considerable volume of unimpeachable evidence drawn from contemporary surveys and similar sources, so that this step of my argument does not lack support.¹ To prove that a field has been divided does not prove that a common field has been divided into enclosures, as the reader may see for himself by studying the plan of ridge and furrow in Soulbury made by Dr Mead. Here he will see that there is a certain coincidence between the pattern of ridge and furrow and the furlongs of the former common fields, from which he may draw the comforting conclusion that the lie of the land has not yet at least been materially altered; but he will also see, in the former enclosures, some apparent examples of closes being cast into furlongs and of changes in the direction of ploughing in 'pastures'. None of this could, of course, be deduced from ground observation or without the assistance of an old map, from which the extent of former common field may be determined precisely without recourse to the hazards of archaeological method.²

For all the reasons advanced previously and above, it is impossible to prove the former existence of common fields merely from ground observation, far less from the reading of aerial photographs, and it would therefore appear that Mr Beresford is incorrect in clinging to the kernel of his former argument.

II

Some early writers, notably Seebohm and Slater,³ asserted that the dispersed and intermingled holdings in common fields were bounded by balks

¹ *The Parliamentary Survey of the Lands and Possessions of the Dean and Chapter of Worcester*, ed. T. Cave and R. A. Wilson, Worcs. Hist. Soc., 1924, pp. 60, 129, 160; *The Survey of the Manor of Rochdale 1626*, ed. H. Fishwick, Chetham Soc. new. ser. LXXI, 1913, pp. 38-40, 42, 74; E. M. Hartshorne, *Memorials of Holdenby*, London, 1868, pp. xxi-ii; WSL, D/1765/27; Staffs RO, Hatherton MSS., box 16, bdle. b, Penkridge Ct. of Surv. ff. 1 ff.; Oxfords. RO, J. vii. 2; Northants RO, Finch-Hatton Coll. 119. f. 20; 272, ff. 8, 24-6; 298, pp. 2, 6; Brudenell Coll. ASR. 562, p. 7; O.x.14; Soms. RO, DD/CN, Acc. C.168, box 2, no. 26, p. 95; DD/X/GB, Acc. W.9, Combe Surv. Bk. pp. 175, 228; Herts RO, Gorhambury Coll. xi. 11, f. 60; MB, Add. MS. 34683, f. 4v.; Add. Ch. 53392, mm. 7, 11-12, 15-18; PRO, Rentals and Survs. (RS), Gen. Ser. (GS), file 26, no. 166, f. 10; Exch. QR, Deps. by Comm. 15 Chas. I, East. 6, esp. m. 74; LR, MB, vol. 185, ff. 15 (14), 36, 100v., 102, 134 (34) v., 156 (50); 222, f. 21; AO, MB, vol. 419, f. 53; PS (Hunts) no. 3, f. 10; (Northants) no. 3; no. 20, f. 18; (Ruts.) no. 13, f. 1; (Warks.) no. 10, f. 5; no. 15; no. 16, f. 7; no. 17, ff. 1 ff.; (Yorks.) no. 28, f. 14. Many other instances could be adduced.

² Mead, *art. cit.*, pp. 40-1.

³ F. Seebohm, *The Engl. Village Community*, London, 1883, p. 3; G. Slater, *The Engl. Peasantry and the Enclosure of Common Fields*, London, 1907, p. 63.

of greensward. This was sharply contradicted by Dr and Mrs Orwin. The document Seebohm referred to was found to mention only a few balks. Where sward balks did occur they were only temporary and confined to the fallow year.¹ Dr Orwin could not accept Seebohm's view because "to an agriculturalist this seemed so highly improbable." Moreover, there were no signs of boundary balks in surviving ridge and furrow, which was assumed to be largely that ploughed in former common fields. To clinch the matter, "the Laxton farmers laughed at the bare suggestion."² From this time boundary balks of greensward became regarded as one of the common errors in history and the invention of prejudiced ignorance.³ Nevertheless, Mr Drew found evidence of boundary balks in the common fields of the Isle of Portland and inferred their use in other warm-soiled common fields.⁴ Mr Finberg pointed to the boundary balks of Braunton and of other places in Devon,⁵ I myself to those of the Chalk Country. Mr Drew and I, confronted with apparently conflicting evidence from different farming regions, tried to reconcile these conflicts by suggesting that where the land was gathered into elevated ridge and furrow, Dr and Mrs Orwin were correct in banishing boundary balks from the common fields, but that where the land was ploughed flat, the parcels lying dispersedly in the fields were bounded by grass balks.⁶ This compromise, however, proved unacceptable to Dr and Mrs Orwin. To every example of boundary balks produced, they responded with the 'theory of exceptions', that is, everything in disagreement with their argument was assumed to be an exception to prove the rule, even when the 'exceptions' outnumbered the 'normal'. Owing partly perhaps to the improvident contraction of one of my footnotes, Dr and Mrs Orwin brushed aside my arguments, declaring that I did not understand the distinction between water-furrows and open-furrows and had failed to realize that even when the land was ploughed flat, it was usually by the ridge-and-furrow method.⁷

One piece of evidence still remained to be disposed of, namely, the linchets

¹ C. S. and C. S. Orwin, *The Open Fields*, Oxford, 1938, pp. 46-7.

² C. S. Orwin, 'Observations on the Open Fields', *Econ. Hist. Rev.* VIII, 1938, pp. 128-9.

³ R. F. Treharne, *Common Errors in History*, Hist. Assoc. 1947, p. 6, cited in C. D. Drew, 'Open Arable Fields at Portland and elsewhere', *Antiquity*, XXII, 1948. See also A. L. Poole, *From Domesday to Magna Carta*, Oxford, 1951, p. 50, n.1.

⁴ Drew, *art. cit.*, pp. 79-81.

⁵ H. P. R. Finberg, 'The Open Field in Devonshire', *Antiquity*, XXIII, 1949, pp. 180, 182; W. G. Hoskins and H. P. R. Finberg, *Devonshire Studies*, London, 1952, pp. 266, 276-8. See also J. A. Venn, *The Foundations of Agricultural Economics*, Cambridge, 1923, p. 14.

⁶ Drew, *loc. cit.*; Kerridge, *art. cit.*, p. 19.

⁷ *The Open Fields*, 2nd ed., Oxford, 1954, pp. 46 ff.

on the slopes of certain hilly regions. Individual archaeologists and the Congress of Archaeological Societies came to the conclusion that these terrace linchets were associated with and caused by cultivation in open fields, the grassy balks or linchets serving as brakes against the soil-creep caused by one-way downhill ploughing. This conclusion is, however, unacceptable to Dr and Mrs Orwin. They say it is topographically inconceivable that the terraces should have been associated with open-field cultivation. First, there is very little soil or subsoil there. Secondly, the theory of the archaeologists depends on the unwarranted assumption that the parcels in open fields were divided by balks. Moreover, no land-hunger can be imagined that would have driven people to cultivate these slopes, even if their ploughs had been able to cultivate them, which they were not. Dr and Mrs Orwin also bring forward archaeological evidence to the effect that the solid nature of the chalk rock in one place made any theory of ploughing incredible, for the terraces could only have been formed with pick and shovel. They are willing to concede that the terraces were man-made, but not that they were connected with cultivation, still less with open-field cultivation and boundary balks.¹ Boundary balks were therefore nowhere used in the common fields, not even in the hill countries.

The recent discovery of the Piltdown hoax shows that archaeological methods have greatly improved, but it nevertheless emphasizes their fundamental weaknesses and the great difficulty that historians labour under in assessing archaeological evidence. Suffice it to say, therefore, that the dissident archaeological report cited by Dr and Mrs Orwin contented itself with declaring that the purpose of the terracing must be left an open question. Dr and Mrs Orwin have therefore no archaeological justification for closing it.² Those who think that the terraces must, some of them, have been excavated with pick and shovel perhaps underestimate the ability of the plough, for hill roads were sometimes formed simply by ploughing the land level.³ In any event the suggestion is certainly not new. Seebohm suggested that some of the terraces were artificially cut.⁴ So did Cobbett, as I had already shown.⁵ The most comprehensive discussion of linchet terracing is contained in the passage quoted from Marshall by Dr and Mrs Orwin. "The ARTIFICIAL SURFACE which meets the eye," he says, "in different parts of these hills, forcibly arrests the attention. It occurs on the steeper slopes; which are formed into stages, or platforms, with grassy steeps, provincially 'LINCHETS', between them. This form of surface must have been produced, at great expence, in the first instance, or by great length of time, in constantly turning

¹ *The Open Fields*, pp. 177-9.

² *Ibid.*, p. 178.

³ Atwell, *op. cit.*, p. 90.

⁴ Seebohm, *op. cit.*, p. 6.

⁵ 'Ridge and Furrow and Agrarian History', p. 23.

the furrows, downward of the slope. But as the turnwrest plough has never, perhaps, had a footing, on this division of the Chalk Hills, it is probable, that the stages under notice were formed, by hand; at some period, when manual labour, either through an excess of population, or through the means of feudal services, was easily obtained. And the advantages, arising from the operation, have no doubt repaid the first cost, with ample interest. The stages, or platforms, are equally commodious for implements of tillage, as for carriages; beside retaining moisture, better than sloping surfaces; while the grassy steeps, between the arable stages, afford no inconsiderable supply of herbage; on which horses are teddered, or tended, while corn is in the ground; and which gives pasturage to sheep at other seasons. This sort of artificial surface is common, in different parts of the Island; and the antiquary might be less profitably employed, than in tracing its origin."¹

Whether or not the terraces and steeps were cut or resulted from cultivation—and the two explanations are reconcilable—does not matter for this discussion. What is clear is that Marshall was not simply mystified by the linchets. Although he thought their origin should be investigated, he was perfectly clear that the terraces were tilled for corn and that they were divided by grassy balks. Marshall's accuracy as an observer of English husbandry means that further evidence of the cultivation of terraces is not needed. But if it were needed, plenty could be adduced. Cobbett saw hundreds of acres in the down countries ploughed in shelves, where the side of the steep hill had been made into stairs. The horizontal parts were generally ploughed and sown.² Jethro Tull also makes clear reference to terraced cultivation.³ The rising parts, as already pointed out, were called *linchets*, *linchards*, *balks*, or *walls*.⁴ That the common field upon the 'walls' at Amesbury in the sixteenth and seventeenth centuries was such terraced cultivation can hardly be doubted.⁵ At Kensworth there were "iij rodas iacentes super lez lynches super Stokynghill."⁶ At Clothall some of the linchet terraces were cultivated until recently.⁷ Similar terracing is to be found on the sides of some of the hills in northern England and is well described in Dr Raistrick's book on Malham.⁸ We can believe Mr Douch when he tells us that "the transformation of the balk into a linchet where the

¹ *Rural Econ. of the Southern Counties*, London, 2 vols. 1798, II, pp. 301-2.

² *Rural Rides*, Everyman, II, p. 81.

³ *Horse-Hoeing Husbandry*, London, 1762, pp. 242-5, 253.

⁴ Kerridge, *art. cit.* p. 23.

⁵ Devizes Mus., Lib. Super. maneriorum de Amisburie etc., f. 25v.; Amesbury Surv. Bk. 1574; Surv. of Amesbury 1635, ff. 43-4, 55-7, 59.

⁶ H. L. Gray, *Engl. Field Systems*, Harvard Hist. Studies, xxII, Camb., Mass. 1915, p. 377, n.4.

⁷ Venn, *op. cit.*, p. 32.

⁸ A. Raistrick, *Malham and Malham Moor*, Clapham via Lancaster, 1947, pp. 54-5, 68.

soil is turned downhill" can be seen at the Isle of Portland, and that "the theory that some lynchets, at least, are intimately connected with Open-Field agriculture is thus proved."¹

It might be argued that the hillside terraces should be excluded from consideration in discussing the question of boundary balks because of their exceptional character. But the truth is that Laxton, on the study of which *The Open Fields* is based, is every whit as exceptional as the Isle of Portland. Nor are the authors justified in suggesting that quarrying differs from other rural industries in its effect on boundary balks. The balks of the Isle of Portland cannot be so easily dismissed, while to exclude the slopes of the hill countries from consideration is to exclude a large part of England. Moreover, the 'landsheds' of Branton Great Field and of many other places in Devon are not exceptional. Dr and Mrs Orwin attribute large parcels in open fields solely to consolidation, because their theory of the origin of open fields demands this; but even if the large parcels were the result of consolidation, this consolidation, as we shall see, would have lessened the number of boundary balks, not increased it. Therefore the 'landsheds', another variant of the provincial name for boundary balks, may be taken in evidence. Formerly, I contented myself with observing that the terms *linch*, *linchet*, *linchard*, *landshere*, *mere*, *balk*, and *wall* all had, in the Chalk Country, the same general meaning of boundary balks in common fields, this being the meaning attached to some of them by John Worlidge.² Since, however, Dr and Mrs Orwin regard this evidence as insufficient and since my previous footnote was too contracted, I venture to give below the references appended to the original draft of that article,³ some of which may be worth further comment. At Elcombe in 1655 there were twelve acres of linchards.⁴ A glebe terrier of Norton Bavent clearly describes many parcels linched on either side.⁵ A survey of Alvediston shows sixteen and a half acres dispersed in the common field and bounded on every side by "lanchards."⁶ There is thus sufficient evidence of boundary balks in the Chalk Country.

At first sight it is not easy to see why Dr and Mrs Orwin should have laboured under the misapprehension that I did not know the distinction between a water-furrow proper and an open-furrow, for I defined this

¹ R. Douch, 'Customs and Traditions of the Isle of Portland', *Antiquity*, xxiii, 1949, p. 152.

² *Art. cit.*, pp. 19, 23.

³ *A Descriptive Catalogue of the Manorial Rolls belonging to Sir H. F. Burke*, Manorial Soc. Pubs. xii, 1923, Pt. 2, p. 22; PRO, Ct. R., GS, bdle. 209, no. 19, Mere Hallmote 16 Apr. 9 Eliz.; Wilton MSS., Ct. Bk. Various Parishes 1633-4, f. 36v.; Ct. Bk. Bemerton and Quidhampton 1595-1639, 15 Apr. 16 Jas. ⁴ Devizes Mus., Deed Room Wr./lb, f. 65.

⁵ R. C. Hoare, *Hist. of Mod. Wilts.*, London 1822-43, Hundred of Warminster, pp. 81-2.

⁶ Wilton MSS., Survs. of Manors 1632-3, Surv. of Alvediston, f. 3.

precisely in my article.¹ Nor did I fail to realize that warm soils were usually ploughed by the ridge-and-furrow method even when not gathered into highbacks. If my use of the word 'land' did not signify this awareness, then a glance at my edition of the Wilton surveys would have dispelled any doubts on that score.² My original draft contained an even fuller explanation of the various methods of ploughing, later jettisoned only from exigencies of space.³ Moreover, my use of the term 'ridge and furrow' in its narrower sense of highbacks is justified not only by common sense and usage but also by precedent.⁴ It is certainly odd that Dr and Mrs Orwin should object so persistently to the presence of boundary balks in the common fields. The only possible explanation of this would seem to be that they regard the balks as incompatible with their theory of the origin of open fields. Against that theory, Professor Postan urged some powerful objections.⁵ However, it is only by finding and weighing the admissible evidence that the issue can be decided one way or the other.

Let us reconsider the suggestion already advanced, that is, that there were boundary balks in the common fields on warm, dry soils but not on cold, wet soils, in the chalk-down countries but not in the Midland Plain. On further examination it becomes clear that this position of compromise is untenable, and that both Mr Drew and myself were mistaken in giving credence to the conclusions of Dr and Mrs Orwin even within the limits of the Midlands. There were in fact boundary balks in the common fields here as elsewhere, and I was wrong to agree that "ridge and furrow bears out the erasure of balks." In Northamptonshire, "Most of the Lordships" had "Lays of Greensod which are left betwixt the Furlongs, and in several Places betwixt each of the Lands. . ."⁶ Near Market Deeping the arable common fields were ploughed up into broad arched lands, but furrows three, four, or five yards wide were laid to grass and mown for hay.⁷ In Buckinghamshire the open-field ridges were two feet high and the sheep commoned on the balks between them.⁸ The green furrows of Warwickshire were similar⁹ and can-

¹ *Art. cit.*, p. 17. See also pp. 19, 22.

² *Surv. of the Manors of Philip First Earl of Pembroke and Montgomery*, Wilts. Arch. Soc. Rec. Brch. IX, 1953, s.v. ridges.

³ For advice on this I am indebted to Professor R. H. Tawney.

⁴ J. Morton, *Natural Hist. of Northants.*, London, 1712, p. 340; R. Plot, *Nat. Hist. of Staffs.*, Oxford, 1688, p. 55; *The Book of Husbandry*, ed. W. W. Skeat, Engl. Dialect Soc., 1882, p. 132; Kerridge, *art. cit.*, p. 24; Marshall, *Rural Econ. Norfolk*, I, p. 147; Blith, *op. cit.*, p. 103.

⁵ M. M. Postan in *Econ. Hist. Rev.* IX, 1939, pp. 194-5.

⁶ Morton, *op. cit.*, p. 14.

⁷ Marshall, *Eastern Dept.*, p. 135.

⁸ St J. Priest, *Gen. View of the Agric. of Buckinghamshire*, London, 1813, p. 131.

⁹ Kerridge, *art. cit.*, pp. 20, 24.

not be regarded as exceptional. References to greensward balks dividing and bounding the properties and occupations lying dispersedly in the common fields of the plain countries are superabundant. Sometimes the grass boundary balks are distinguished from the ridgeways and slades by the designation 'narrow' or 'foot', alluding to their width. Frequently the balks, green meres, or green furrows are described as lying between neighbour and neighbour. In some townships these balks were one foot wide, in some eighteen inches, in some two feet, in some three or four. Sometimes they were wider between acres than between roods.¹

Whether these boundary balks were an essential part of common fields is a point that cannot yet be determined, but there can be no doubt that they were highly advantageous to common-field husbandry as practised in the early modern period. The balks were not made solely as boundaries but partly to be used as meadow and pasture, to which the wet furrows and ridge flanks were well suited. Nevertheless to divide the dispersed lands and parcels was one of the main objects of boundary balks. For this reason an occupier of contiguous lands might plough up the greensward balks between them, but not those on their two outsides.² Thus when a land had been a middle land, it did not have to be balked on each side, but after it was exchanged and became an end land, it had to be balked on the one side to provide a boundary between neighbour and neighbour.³ Dr and Mrs Orwin make the unsupported assertion that the boundary balks they treated as exceptional

¹ Tancred, *art. cit.*, p. 202; F. S. Colman, *A Hist. of Barwick-in-Elmet*, Thoresby Soc., xvii, 1908, p. 127; BM, Add. MS. 36875, f. 25; 36908, ff. 8, 15v.; Add. R. 54166; PRO, DL, RS, bdle. 8, no. 6a, p. 3; Ct. R., bdle. 82, no. 1133, m. 29; bdle. 106, no. 1534, m. 6; 1535, mm. 1, 5-6; Ct. R., GS, bdle. 207, no. 42, Lillington 5 Apr. 2 Ed. VI; Exch., Q.R., Deps. by Comm., 26 Eliz., Trin. 8; Chanc. Proc. ser. 1, Jas. I, bdle. S.29, no. 7, m. 1; Leics. RO, Linden Hall MS. 343; SOA, Man. Docs., Ct. R. Alveston and Tiddington 21 Oct. 9 Jas. I, 11 Apr. 18 Chas. II; Ct. R. Whitchurch 12 Oct. 1711; Willoughby de Broke Coll. 703a, Extracts Ct. R. Barford 30 Sept. 1 Jas. I; 1194, Ct. R. 6 Apr. 11 Chas. I; 1393a, Ct. Bk. Sowe 6 Apr. 8 Geo. I; Throckmorton Coll., Ct. R. Throckmorton 13 Oct. 1725; Ct. Bk. Stoneleigh, p. 23; Leigh Coll., Ct. R. Ratley 20 Oct. 1602; Trevelyan Coll., Ct. R. Snitterfield 20 Oct. 1660; Northants RO, Montagu Coll., Misc. Ledger 129, Weekley 12 Oct. 1721, Polebroke 7 Oct. 1727, Luddington 12 Oct. 1728; 145, pp. 71, 157-8, 469, 503; box 1352, box 26, no. 28, Ct. R. Caldecote 11 Dec. 5 Chas. I; box 1346, box 20, no. 32, m. 16; box 1336, box 7, no. 72, Ct. Bk. Weekley 4 Oct. 1707; no. 66/10 Ct. R. 12 Oct. 1721; box 1342, box P, pt. 2, Ct. Files Dondon in Quainton 10 Sept. 1700, field orders; Daventry Coll. 533, Hellidon orders 20 Oct. 29 Chas. II; 20 Oct. 36 Chas. II; 540, Hellidon orders 16 Oct. 14 Chas. II; 573a, Ravensthorpe agreement 1721; Isham of Lamport Coll. 128, Ct. R. Lamport 30 Apr. 18 Eliz.; Cambs. RO, L.64, Ct. R. Foxton Bury etc. 7 Dec. 1665; Warks. RO, MR. 14, copy Ct. R. Leamington Hastings 25 Aug. 1630; MR. 16/9; WSL, Ct. R. Shenstone 12 Oct. 18 Chas. I.

² Slater, *op. cit.*, p. 331; Northants RO, Aynho Ct. R. 9 Apr. 1680.

³ PRO, Exch. Q.R., Deps. by Comm. 26 Eliz., Trin. 8, dep. by Wm. Harrowden.

were also merely temporary and left unploughed only during fallowing.¹ There is, however, abundant evidence that it was forbidden by customary law to plough up the boundary balks during any year of the field-course, especially and specifically where the lands were not middle but end lands and the balks were boundaries between neighbour and neighbour.²

The general use of boundary balks in the lands dispersed in common fields in the early modern period is therefore established beyond doubt. Dr and Mrs Orwin have denied their existence; but they are to be found at all hands, at least in the early modern period, and the onus of disproof lies upon those who would deny their existence in the common fields of earlier times. Confronted with a few instances of balks in common fields, Dr and Mrs Orwin argued that these instances were exceptional and that the boundary balks themselves were produced by the consolidation of dispersed parcels. Since, however, it was often permitted to plough out the balks between middle lands but not usually those between neighbour and neighbour, it is clear that the consolidation of dispersed parcels into fewer and larger units of occupation and ownership would not increase but decrease the number of boundary balks.

Nevertheless, it would be wrong to assert that all common fields everywhere and at all times had boundary balks. Although the presence of such balks, as a general rule, may be taken to be established, there are some instances of common fields, especially in comparatively modern times, which had none.³ Laxton is a case in point. Here, however, there remains only a truncated remnant and almost empty shell of common-field husbandry, and it would be dangerous to argue far from such exceptional survival. How

¹ *The Open Fields*, 1954, pp. 46-7.

² E.g., Coleman, *op. cit.*, p. 127; PRO, DL, Ct. R., bdle. 106, no. 1534, m. 6; BM, Add. MS. 36908 f. 3v.; Add. R. 44654, Ct. R. Whitchurch 7 May 1740; Warks. RO, MR. 14 as in n.1, p. 38; MR. 16/9; Worcs. RO, Acc. 54, Ct. R. Kempsey 31 Mar. 1656; Leics. RO, box 311, Leire arts. of agreement 1689; WSL, Ct. R. Shenstone 1 May 9 Chas. I; Beds. RO, DD/TW 10/2/9, Ct. R. Clapham 14 Apr. 8 Chas. I; BS. 1276, Ct. R. Tempsford 1617; L.26/563, Ct. R. Harrold 2 May 9 Chas. I; Northants RO, Westmorland Coll., box 7, no. 71, Yarwell presentmt. bk., f. 5; Finch-Hatton Coll. 834, Gretton bye-laws 24 Oct. 1695; 991, Ct. R. Weldon Magna 1728; Ecton Coll. 20, Ct. R. 9 Oct. 1713; 7a, Ct. R. 1 May 1701; 9, Ct. R. 14 Oct. 1743; Daventry Coll. 532, Hellidon orders 13 Nov. 1714; 533, do. 20 Oct. 29 Chas. II; 573c, Ravensthorpe agreement 1760; Montagu Coll., Misc. Ledger 145, pp. 236, 451; box 1342, box P, Pt. 2, Ct. Files Dondon in Quainton 10 Sept. 1700; box 1352, box 18, no. 160, Barnwell orders 1 Dec. 1614; Higham Ferrers Burgess R. 1696-1725 field orders, 23 Apr. 1719; SOA, Man. Docs., Ct. Files Whitchurch, pains and orders, 24 Apr. 1588, 12 Oct. 1711; Ct. Bk. Stoneleigh, p. 23; Ct. R. Alveston and Tiddington 11 Apr. 18 Chas. II; Ct. Bk. 20 Apr. 2 Jas. I; Willoughby de Broke Coll. 1393a, Ct. Bk. Sowe 6 Apr. 8 Geo. I; Hood Coll., Ct. R. Stivichall 3 Oct. 1724.

³ Slater, *op. cit.*, p. 15; Venn, *op. cit.*, pp. 13-14.

some common fields lost their boundary balks in modern times can be seen from the example of Wendon. When the common field here was consolidated and redistributed, the balks, so far from being newly laid down, were ploughed up and replaced by clover crops.¹ From about the turn of the seventeenth and eighteenth centuries clover and turnip crops were widely introduced into the field-courses employed in common fields, and in the plain countries in particular the introduction of clover and 'seeds' greatly reduced the incidence of bare fallows in many common fields. Often the resultant change in field-courses was accompanied by consolidation and redistribution. For these and other similar reasons the few surviving remnants of common fields shed only a dim light upon former common-field husbandry.

Boundary balks, like ridge and furrow, are amongst the *minutiae* of former husbandry practice, and no purpose would be served in expatiating on them unless the opportunity were taken to draw the general conclusion that the common fields are best studied from the records that their husbandry produced, namely, the pains and penalties, the orders and agreements recorded in the rolls and books of proceedings in courts baron, and that to take one township and generalize from it for the whole of England is an undertaking fraught with hidden dangers.

¹ W. James and J. Malcolm, *Gen. View of the Agric. of the Co. of Buckingham*, London, 1794, p. 29.

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